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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,176	10/24/2003	John Martin Burns	HSJ920030216US1	2612

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EXAMINER	
RONESI, VICKEY M	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/693,176	BURNS, JOHN MARTIN	
	Examiner	Art Unit	
	Vickey Ronesi	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/24/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1, 2, 6-9, 13, 21, 22, 28, and 33 are objected to because of the following reasons:

With respect to claims 1 and 6, the singular term "the solvent" lacks antecedent basis.

With respect to claim 2 and 9, the singular term "fluorinated solvent" in line 1 lacks antecedent basis.

With respect to claim 6-8, the singular term "the perfluorinated polyether" lacks antecedent basis.

With respect to claim 9 and 33, the phrase "and cyclic ethers" appears to be out of place since cyclic ethers are not fluorinated solvents.

With respect to claims 13 and 28, the period after "trifluoroethanol" in line 2 of each claim should be replaced with a comma.

With respect to claims 21 and 22, the term "using" as recited in a composition claim is incorrect.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 1, 3-5, 9, 10, 12-14, 18, 24, 26, 28, 31, and 33, they appear to improperly recite a Markush group. Consequently, it is impossible to determine which elements of the group are required by the claims. When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. For example, if "wherein R is a material selected from the group consisting of A, B, C and D" is a proper limitation, then "wherein R is A, B, C or D" shall also be considered proper (emphasis added). See MPEP § 2173.05(h).

With respect to claims 6-8, the term "the solution" lacks antecedent basis.

With respect to claims 2, 7, 11, 15-17, 19-23, 25, 27, 29, 30, 32, and 34, they are rejected for being dependent on a rejected claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6, 9-13, 15, 18-26, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishimura et al (US 4,597,882).

Nishimura discloses perfluorinated polyethers which are added to a compatibilizer solvent such as an azeotropic mixture of trichlorotrifluoroethane and ethanol or a mixture of trichlorotrifluoroethane and ispropanol (col. 3, lines 38-49). 0.5-10 parts by weight (pbw) of

solvent (i.e., solvent + alcohol solubilizer) is used per 1 pbw waste oil (i.e., perfluorinated polyether).

In light of the above, it is clear that Nishimura et al anticipates the presently cited claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7, 8, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura et al (US 4,597,882).

The discussion with respect to Nishimura et al in paragraph 3 above is incorporated here by reference.

Nishimura et al teaches adding the lubricant to a solvent mixture containing fluorine-containing solvent and alcohol, however, it does not teach mixing the lubricant first with the fluorine-containing solvent and then adding the alcohol or mixing simultaneously the lubricant, solvent, and alcohol. Nevertheless, it is considered that any mixing order is obvious since no criticality for the mixing order has been established. Case law holds that the selection of any order of mixing ingredients is *prima facie* obvious. *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930).

5. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohnuki et al (US 5,292,585) in view of Nishimura et al (US 4,597,882).

Ohnuki et al discloses a purified perfluoropolyether lubricant that is used in a magnetic recording medium which is made by applying a magnetic recording layer to a substrate, applying a carbon layer (i.e., overcoat layer), and then applying the perfluoropolyether lubricant in a compatible solvent (col. 13, lines 10-20, 47-55).

Ohnuki et al teaches the use of fluorinated solvents (col. 5, lines 59-68), it does not teach the use of an alcohol added to the solvent.

Nishimura et al discloses fluorine-containing solvents compatible with fluorine-containing lubricant such as perfluoropolyether such as an azeotropic mixture of trichlorotrifluoroethane and ethanol and a mixture of trichlorotrifluoroethane and isopropanol.

Given that Ohnuki et al is open to the use of any fluorine-containing solvent compatible with perfluoropolyether, it would have been obvious to one of ordinary skill in the art to utilize a fluorine-containing solvent with an alcohol as the compatible solvent when preparing the magnetic recording medium of Ohnuki et al.

6. Claims 1, 3-10, 12-19, 21-31, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinomoto et al (US 5,498,359).

Shinomoto et al discloses a perfluorinated polyether is applied to a magnetic recording medium once dissolved in a solvent such as FREON, tetrahydrofuran, isopropanol, dioxane, and mixtures thereof (col. 5, lines 6-15; col. 6, lines 14-19). Shinomoto et al also teaches the use of

similar solvents, and it is considered that hydrogenated/halogenated alcohols would also be suitable, including those presently claimed.

Given that Shinomoto et al teaches mixtures of solvents including fluorinated solvents and hydrocarbon solvent which would intrinsically behave as solubilizers, it would have been obvious to one of ordinary skill in the art to utilize mixtures of solvent, including the presently claimed combination. With respect to claims 6-8 and 15-17, it is the examiner's position that any mixing order would have been obvious since no criticality was provided by Shinomoto et al. Moreover, case law holds that the selection of any order of mixing ingredients is *prima facie* obvious. *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930).

7. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinomoto et al (US 5,498,359) in view of Karle et al (US 5,116,685).

The discussion with respect to Shinomoto et al in paragraph 6 above is incorporated here by reference.

Shinomoto et al teaches some solvents for use in the magnetic recording medium, however, it does not teach unsaturated cyclic ethers.

Karle discloses a magnetic recording medium containing lubricants and teaches typical solvents include nonacidic organic solvents such as monoethers, including pyran, an unsaturated cyclic ether (col. 5, lines 30-41).

Given that Shinomoto et al is open to the use of common organic solvents for use in magnetic recording mediums and further given that Karle teaches that pyrans are suitable

solvents, it would have been obvious to one of ordinary skill in the art to utilize an unsaturated cyclic ether as the solvent in Shinomoto et al.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

3/16/2006
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